

KRISHI VIGYAN KENDRA (IDUKKI)

ANNUAL REPORT – (2017-18)

(FOR THE PERIOD FROM 01 APRIL 2017 TO 31 MARCH 2018)

ICAR - Krishi Vigyan Kendra,

Bapooji Sevak Samaj,

Pethotty P.O., Santhanpara,

Idukki (Dt.), Pin-685619, Kerala.

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Bapooji Sevak Samaj,

Kakkattu, Meenadom P.O.,

Pampady, Kottayam (Dt.),

Pin-686 516, Kerala.

Phone: 0481-2506271

E-mail: bkvkchairperson@gmail.com

PART I - GENERAL INFORMATION ABOUT THE KVK**1.1. Name and address of KVK with phone, fax and e-mail**

KVK Address	Telephone		E mail	Web Address
	Office	Fax		
ICAR - Krishi Vigyan Kendra, Bapooji Sevak Samaj, Pethotty P.O., Santhanpara, Idukki (Dt.), Pin-685619, Kerala.	04868 – 247541, 247715.	Nil	kvksanthanpara@gmail.com	www.kvکیدukki.org

1.2. Name and address of host organization with phone, fax and e-mail

Address	Telephone		E mail	Web Address
	Office	Fax		
Bapooji Sevak Samaj, Kakkattu, Meenadom P.O., Pampady, Kottayam (Dt.), Pin-686 516, Kerala.	0481-2506271 +91 9446826019	04868-247048	bkvkchairperson@gmail.com	www.kvکیدukki.org

1.3. Name of the Programme Coordinator with phone & mobile No

Name	Telephone / Contact		
	Residence	Mobile	Email
Mr. Sudhakar Soundarajan, Programme Coordinator i/c.	9495814202	+91 9526020728	sudhakarsounda@gmail.com

1.4. Year of sanction: 1994.**1.5. Staff position as on 31 March 2018**

Sl. No.	Sanctioned post	Name of the incumbent	Designation	M / F	Discipline	Highest Qualification (for PC, SMS and Prog. Asst.)	Pay Scale	Basic pay	Date of joining KVK	Permanent /Temporary	Category (SC/ST/OBC/ Others)
1	Head/Senior Scientist	Vacant	Programme Coordinator	-	-	-	-	-	-	-	-
2	Scientist/SMS	Dr. S. Jayababu	Subject Matter Specialist	M	Animal Science	B.V. Sc. & AH	15600-39100	21000	19-06-1995	Permanent	Others
3	Scientist/SMS	Manju Jincy Varghese	Subject Matter Specialist	F	Soil Science	M.Sc. Agriculture (Soil Science)	15600-39100	21000	10-01-2011	Permanent	Others
4	Scientist/SMS	Dr. Binu John Sam	Subject Matter Specialist	M	Horticulture	Ph.D. Horticulture	15600-39100	21000	17-01-2011	Permanent	Others
5	Scientist/SMS	Sudhakar Soundarajan	Subject Matter Specialist	M	Plant Protection	M.Sc. Agricultural Entomology, MBA	15600-39100	21000	27-01-2011	Permanent	OBC
6	Scientist/SMS	Vacant	Subject Matter Specialist	-	Agronomy	-	-	-	-	-	-
7	Scientist/SMS	Vacant	Subject Matter Specialist	-	Agri. Extension	-	-	-	-	-	-
8	Programme Assistant (Lab Tech.)	Jayisy Joseph	Programme Assistant	F	Home Science	M. Sc. Home Science (Extension for Rural Development)	9300-34800	13500	20-06-1995	Permanent	Others
9	Programme Assistant (Computer)	Biju Narayanan	Programme Assistant	M	Computer Application	M.C.A., PGDCA	9300-34800	13500	01-10-2007	Permanent	OBC
10	Programme Assistant / Farm Manager	Rachel Skariakutty	Programme Assistant	F	Rural Craft	M.A. Sociology (P.G. Diploma in Rural Development)	9300-34800	13500	05-06-1995	Permanent	Others
11	Assistant	Shaji. K. Kakkattu	Assistant	M	-	-	9300-34800	13500	05-06-1995	Permanent	Others
12	Jr. Stenographer	Daisy Daniel	Jr. Stenographer	F	-	-	5200-20200	7100	05-06-1995	Permanent	Others
13	Driver	P. Nandagopal	Driver	M	-	-	5200-20200	7200	05-06-1995	Permanent	OBC
14	Auxiliary Staff	K.T. Mathew	Peon/ Messenger	M	-	-	5200-20200	7000	05-06-1995	Permanent	Others
15	SS-1	K.O. Jose	Skilled Supporting Staff-1	M	-	-	5200-20200	7000	05-06-1995	Permanent	Others
16	SS-2	P. Sabu	Skilled Supporting Staff-2	M	-	-	5200-20200	7000	05-06-1995	Permanent	Others

1.6. Total land with KVK (in ha) : 27.60 ha.

S. No.	Item	Area (ha)
1.	Under Buildings	0.074 ha
2.	Under Demonstration Units	0.5 ha
3.	Under Crops	0.5 ha
4.	Orchard/Agro-forestry	0.5 ha
5.	Others	26.026 ha

1.7. Infrastructural Development:**A) Buildings**

Sl. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq. m.)	Expenditure (Rs.)	Starting Date	Plinth area (Sq. m.)	Status of construction
1.	Administrative Building	ICAR	2002	740	47,85,208.10	-	-	-
2.	Farmers' Hostel	NA	-	-	-	-	-	Master Plan & Estimate submitted. Sanction pending.
3.	Staff Quarters	NA	-	-	-	-	-	-
4.	Demonstration Units							
	1. Duck cum fish culture unit.	RF	2009	50	7,000.00	-	-	-
	2. Mushroom unit	Grama Panchayath, Santhanpara	2002	10	85,000.00	-	-	-
	3. Spawn production unit	SHM	2009	10	3,00,000.00	-	-	-
	4. Mist Chamber	SHM	2009	96	2,72,832.00	-	-	-
	5. Rain Shelter	SHM	2009	50	1,04,091.00	-	-	-
5	Fencing	NA	-	-	-	-	-	Urgent requirement as the area is constantly facing intuition of wild animals and other intruders
6	Rain Water harvesting system	NA	-	-	-	-	-	-
7	Threshing floor	NA	-	-	-	-	-	-
8	Farm godown	NA	-	-	-	-	-	-
9	Vehicle garage							Urgently required

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Mahindra Bolero SLE	May - 2012	5,78,380.36	102967	Good condition.
Honda Aviator	March - 2009	50,000.00	12146	Running condition
Motor Bike (Suzuki Shogun)	January - 1995	37,972.78	8864	Not in use.

C) Equipment & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
A.V. aids (Specify)			
Television	1995	20,894.00	Not working
GE OHP	1996	7,100.00	Good, but not in use
ZETT Slide Projector	1996	11,556.00	Not working
Sharp Video Player	1996	10,000.00	Not working
Pentax SLR Camera	1996	13,599.15	Not working
Ahuja Amplifier SSA 160 636956	2003	7,010.00	Good Condition
Ahuja Speaker, SRX50DX	2003	1,825.00	Good Condition
Ahuja Mike SHM 1000XLR	2003	2,295.00	Good Condition (serviced)
Ahuja Mike ASMT 80 XLR	2003	1,470.00	Good Condition
Ahuja mike Stand DGV	2003	510.00	Good Condition
Ahuja Mike stand DGT	2003	295.00	Good Condition
Ahuja portable teaching wireless WA 320 AWL 321	2003	9,700.00	Good Condition
Honda generator Model EBK 2000 AC	2003	32,490.00	Good Condition
LPG Generator 5000 CLS	2011	100000.00	Good Condition
LCD Projector (EPSON_EBW8)	2010	55186.00	Good Condition
Liberty Show Juno 5 x 7 (MW) Screen	2010	5885.00	Good Condition
Kodak Knoma Camera	1995	1550.00	Obsolete
Tripod Screen 52x70 inch	1996	2029.50	In working condition
Soil Science Lab Equipments (Specify)			
KEMI HOT PLATE with Energy Regulator	2006	5,400.00	Bad
Electronic Balance	2006	1,00,000.00	Under use but needs repair
Physical Balance	2006	8,991.00	Good
Spectrophotometer	2006	1,17,499.00	Under use but needs repair
Electronic Automatic KEL PLUS model KES 12L (Nitrogen Analyzer)	2006	97,043.00	Under use but needs repair
Conductivity Meter (PH Meter Utech 510)	2006	21,935.00	Under use but needs repair
HOT AIR OVEN	2006	13,725.00	Good
Water bath WDB2 350 x 400 100mm Size 12	2006	41,895.00	Good
Flame Photometer	2006	45,000.00	Under use but needs repair
Conductivity Meter	2006	13,500.00	Not working and requires new
LG 280 Litre Fridge Model – GI 296 TM V-Guard Stabilizer	2006	250.00	Good
Mixer grinder 750 Watts	2006	4,500.00	Bad and requires new
Online UPS System with Battery	2006	36,916.00	Needs repair
Fume Cupboard KEMI	2006	2,68,192.00	Good
Bio-control Lab Equipments			
Laminar Flow Chamber	2000	50,000.00	Under use but needs repair
Refrigerator	2000	10,760.00	Under use but needs repair
Chemical Balance	2000	1,800.00	Bad and required new
Auto Clave	2000	19,000.00	Bad and required new
Step up Stabilizer	2008	4,595.00	Good
Other Equipments			
FACIT Typewriter (Malayalam)	1995	9,735.00	Obsolete
FACIT Typewriter (English)	1995	9429.00	Obsolete
Stencil Duplicator	1995	13,700.00	Obsolete
Ortem sewing machine	1995	2,300.00	Obsolete
Computer with Printer	2003	49,750.00	Obsolete, needs to be replaced by a Desktop computer
Photostat Machine	2003	80,000.00	Obsolete
Brush Cutter	2009	23,726.00	Good, needs servicing
Fax Machine	2009	15,000.00	Needs servicing
Laptop Computer (DELL Studio 14 N)	2010	37,150.00	Good
Inkjet Printer (Epson TX 111 AIO)	2010	1,779.00	Good

1.8. Details of SAC meeting conducted during 2017-18

Date	Number of Participants	Salient Recommendations	Action taken	Remarks, if any
22/01/2018	25	<ul style="list-style-type: none"> ➤ More stress to promote organic farming. ➤ Micro-nutrient deficiency reported should be tackled through concerted efforts involving relevant line departments. ➤ Importance to be given for drought management ➤ Skill development programmes may be organized for unemployed and rural youth and educate them for producing good planting materials. ➤ Soil test based nutrient recommendations should be encouraged to reduce the indiscriminate use of chemical inputs. ➤ Mass campaigns in association with ATMA on the correct usage of fertilizers and PP chemicals. ➤ Underutilized production units have to be improved. ➤ Popularization of cool season vegetables for crop diversification. 	<ul style="list-style-type: none"> ➤ Training and other extension programmes for the next year are planned, giving more emphasis to reduction of chemical inputs and making aware of the various organic inputs that can go into the existing farming practices. ➤ Awareness on the different micro-nutrient deficiencies of major and minor crops of Idukki district and its prophylactic and curative measures are being taken up primarily with the help of field level extension functionaries of line departments. ➤ Interventions are being planned in this action plan for the same. ➤ Vocational training programme on good planting material production is being stressed and satellite units shall be promoted ➤ The need for soil test based nutrient management is being emphasized through various mass campaigns and training programmes. Its effects are being seen in the different tracts where such deficiencies were noted. Concerted efforts have been initiated for scaling up these activities in the other parts of Idukki district. ➤ Crop based nutrient management strategies are being undertaken to reduce the over usage of chemical fertilizers and PP chemicals. This, coupled with soil health management strategies have gone a long way in improving the crop and soil health of Idukki district. These efforts shall be given more momentum in the coming years too. ➤ Many production units of agriculture and allied sectors have been idled due to manifold reasons and which could have been rectified with an early intervention. KVK has started cohering efforts of line departments in strengthening these units on a scheduled basis so that they may get back to the mainstream production line within a couple of years. ➤ Crop diversification has been given timely importance among the farmers of Idukki district as the district is suitable for a wide range of cool season fruits and vegetables. 	-

PART II - DETAILS OF DISTRICT

2.1 Major farming systems/enterprises (based on the analysis made by the KVK)

S. No	Farming system/enterprise
1	Cardamom and Pepper based farming system in the High Ranges of the District
2	Paddy belts in specific locations
3	Homestead based farming
4	Tea plantation
5	Vegetables (Bitter gourd & Cowpea)
6	Cool season vegetables in Devikulam Block
7	Banana cropping
8	Rubber as mono-crop
9	Dairy cattle, Poultry production & Management
10	Mixed Fodder Production

2.2 Description of Agro-climatic Zone & major agro ecological situations (based on soil and topography)

S. No	Agro-climatic Zone	Characteristics
1.	Zone-XIII	High Ranges
2.	Zone-VII	Malayoram
3.	High altitude zone-Vattavada & Kanthalloor	Climate suitable for cool season vegetables and temperate fruits

S. No	Agro ecological situation	Characteristics
1.	Agro Ecological Zone-1	Major part is mono-cropped with rubber, other areas-homestead farming is practiced with tapioca, banana and vegetables, altitude up to 500M above mean sea level, humid tropics spread over the zone. South West and North East monsoon are active and moderately distributed. South West monsoon with June maximum (South of 11° N latitude)
2.	Agro Ecological Zone-2	Major cropping pattern-Pepper, Cardamom, Coffee, Areca nut, Cocoa and Rubber intercropped, altitude 500M above mean sea level, humid tropics spread over the zone. Steep slopes
3.	Agro Ecological Zone-3	High altitude zone-Vattavada & Kanthalloor. Cool season vegetables occupy major area. Potato, temperate fruits are grown in a small scale. Zone includes the only wheat-growing tract of Kerala. North-East monsoon is prominent.

2.3 Soil type/s

S. No.	Soil type	Characteristics	Area in ha
1.	Manakkattu series	Clayey very deep, developed from gneissic parent material	NA
2.	Cheenukuzhy series	Fine loamy texture	NA
3.	Thommankuthu series	Clayey texture	NA
4.	Venmani series	Clayey texture	NA
5.	Marayoor series	Clay loam to clayey texture	NA
6.	Pampadumpara series	Clayey texture	NA

2.4. Area, Production and Productivity of major crops cultivated in the district

S. No	Crop	Area (ha)	Production (Metric tons)	Productivity (kg /ha)
1	Cardamom	32723	7232	250
2	Pepper	87274	30919	354
3	Banana	2665	23265	8730
4	Rice	1819	4744	2608
5	Coconut	17012	80 million nuts	5209 (Numbers/ha)
6	Tapioca	6223	240290	37883
7	Coffee	12915	8150	616
8	Tea	24648	44192	1514

Source of Data: - Economics and Statistics Department, Kerala State.

2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	

* Please provide latest data from authorized sources. Please quote the source

2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district

Category	Population	Production	Productivity
Cattle			
<i>Crossbred</i>	190581	634938 ton (Milk) & 23090.87 MT (meat)	-
<i>Indigenous</i>	-	5309 ton (milk)	-
Buffalo	7677	4481 ton (milk) & 12385.62 MT (meat)	-
Sheep			
<i>Crossbred</i>	35	-	-
<i>Indigenous</i>	-	-	-
Goats	168474	16898 ton (Milk) & 9092.10 MT (meat)	-
Pigs			
<i>Crossbred</i>	24131	19136.5 MT (Meat)	-
<i>Indigenous</i>			
Rabbits	29678	-	-
Poultry			
Hens	932001	10.64 crores (Egg)	-
<i>Desi</i>	-	238 crores (Egg)	-
<i>Improved</i>	-	8.25 crores (Egg) & 23119.8 MT (Meat)	-
Ducks	-	3.10 crores (Egg)	-
Turkey and others	-	-	

Category	Area	Production	Productivity
Fish	-	-	-
<i>Marine</i>	-	-	-
<i>Inland</i>	-	-	-
Prawn	-	-	-
Scampi	-	-	-
Shrimp	-	-	-

Source of Data: - District Animal Husbandry Office, Thodupuzha, Idukki.

2.7 District profile has been **Updated** for 2017-18 Yes / No: Yes.

2.8 Details of Operational area / Villages

Sl. No.	Taluk	Name of the block	Name of the village	How long the village is covered under operational area of the KVK (specify the years)	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Udumbanchola	Nedumkandam & Kattappana	Santhanpara, Rajakumary, Parathodu, Senapathy, Rajakkad & Vathikudy	2011-2016	Small cardamom Black pepper Cowpea, Tomato & Bitter gourd	Stem and Capsule borer, Root Grub Thrips & Fusarium Foot rot, Quick wilt disease Downy mildew & Nematode	BIPM Crop Improvement BIPDM
2	Udumbanchola	Chinnakanal	Chinnakanal	2 Years	Cardamom	Indiscriminate use of chemical fertilizers	Integrated Nutrient Management, Scientific management of livestock and poultry
3	Udumbanchola	Santhanpara	Santhanpara	5 Years	Cardamom, Black Pepper, Banana livestock & Poultry	Indiscriminate use of PP Chemicals	Integrated Pest Management Scientific Disease Management in dairy cattle and Poultry
4	Udumbanchola	Rajakkad	Rajakkad	5 Years	Cardamom, Black Pepper, Banana, Vegetables livestock & Poultry	Indiscriminate use of chemical inputs	Integrated Crop Management, Scientific Disease Management in dairy cattle and Poultry
5	Udumbanchola	Nedumkandam	Nedumkandam	2 Years	Cardamom, Black Pepper, Banana livestock & Poultry	Indiscriminate use of chemical inputs	Integrated Crop Management, Scientific management of livestock and poultry
6	Udumbanchola	Santhanpara	Santhanpara	5 Years	Cardamom, Black Pepper, Banana, Vegetable livestock & Poultry	Indiscriminate use of chemical inputs	Integrated Crop Management, Fodder production and management Fodder production and management
7	Udumbanchola	Senapathy	Senapathy	3 Years	Cardamom, Black Pepper, Banana, Vegetables, Mushroom, livestock & Poultry	Indiscriminate use of chemical inputs	Integrated Crop Management, Scientific management of livestock and poultry, Fodder production and management
8	Devikulam	Devikulam	Vattavada, Kannan Devan Hills, Marayoor, Mankulam, Anaviratty, Kanthaloore & Munnar	2012-2016	Cabbage Potato Carrot Straw berry Beans	Black rot Bacterial wilt Root weevil Powdery mildew White fly	BIPDM

9	Devikulam	Adimali	Adimali	2 Years	Black Pepper, Cardamom, Banana, Vegetables, livestock & Poultry	Pest outbreak	Integrated Pest Management, Scientific management of livestock and poultry
10	Peermade	Azhutha	Elappara Kokkayar Kumily Peermedu Periyar Upputhara & Vagamon	2010-2016	Tea Coffee & Vegetables	Powdery mildew, Leaf spot & Downy mildew	BIPDM
11	Udumbanchola	Nedumkandam	Santhanpara	5 years	Tapioca	Non availability of mosaic free varieties in Tapioca	Varietal Evaluation
12	Udumbanchola	Nedumkandam	Senapathy	3 years	Bitter Gourd	Micronutrient deficiency	INM
13	Udumbanchola	Nedumkandam	Chemmannar	5 years	Banana	Secondary and Micronutrient deficiency	INM
14	Udumbanchola	Nedumkandam	Senapathy	3 years	Cardamom	Unscientific Nutrient Management	INM
15	Udumbanchola	Nedumkandam	Rajakkad	3 years	Tapioca	Lack of Potassium Efficient Variety	Crop Diversification
16	Udumbanchola	Nedumkandam	Rajakumary	5 years	Amorphophallus	Lack of Acrid free variety	Crop Diversification
17	Udumbanchola	Chinnakanal	Chinnakanal	2 Years	Cardamom	Indiscriminate use of chemical fertilizers	Integrated Nutrient Management, Scientific management of livestock and poultry
18	Udumbanchola	Santhanpara	Santhanpara	5 Years	Cardamom, Black Pepper, Banana livestock & Poultry	Indiscriminate use of PP Chemicals	Integrated Pest Management Scientific Disease Management in dairy cattle and Poultry
19	Udumbanchola	Rajakkad	Rajakkad	5 Years	Cardamom, Black Pepper, Banana, Vegetables livestock & Poultry	Indiscriminate use of chemical inputs	Integrated Crop Management, Scientific Disease Management in dairy cattle and Poultry
20	Udumbanchola	Nedumkandam	Nedumkandam	2 Years	Cardamom, Black Pepper, Banana livestock & Poultry	Indiscriminate use of chemical inputs	Integrated Crop Management, Scientific management of livestock and poultry
21	Udumbanchola	Santhanpara	Santhanpara	5 Years	Cardamom, Black Pepper, Banana, Vegetable livestock & Poultry	Indiscriminate use of chemical inputs	Integrated Crop Management, Fodder production and management Fodder production and management

22	Udumbanchola	Senapathy	Senapathy	3 Years	Cardamom, Black Pepper, Banana, Vegetables, Mushroom, livestock & Poultry	Indiscriminate use of chemical inputs	Integrated Crop Management, Scientific management of livestock and poultry, Fodder production and management
23	Devikulam	Adimali	Adimali	2 Years	Black Pepper, Cardamom, Banana, Vegetables, livestock & Poultry	Pest outbreak	Integrated Pest Management, Scientific management of livestock and poultry

2.9 Priority thrust areas

S. No.	Thrust area
1.	Integrated Nutrient Management in major crops
2.	IPDM in major Plantation and Vegetable crops
3.	Integrated sustainable farming system models
4.	Organic agriculture
5.	Scientific management of livestock and poultry
6.	Scientific Disease Management in dairy cattle and Poultry
7.	Fodder production and management
8.	Popularization of poultry breeds
9.	Value addition of farm produce

PART III - TECHNICAL ACHIEVEMENTS**3.A. Details of target and achievements of mandatory activities**

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
8 (includes 2 nos. OFTs ongoing in previous F.Y. (2016-17) completed during this F.Y.)	8	40	40	14 (includes 4 nos. FLDs ongoing in previous F.Y. (2016-17) completed during this F.Y.)	14	115	115

Training				Extension Programmes			
3				4			
Number of Courses		Number of Participants		Number of Programmes		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
119	141	1965	3407	201	363	423	1348

Seed Production (Q)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
		2500	2500

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
100	60	Trichoderma (1000 L)	2075
		Pseudomonas (1000 L)	2140
		Beauveria (1000 L)	325
		Lecanicillium (500 L)	282
		Metarhizium (200 L)	170
		Yellow sticky trap (2000 Nos.)	1000
		Blue sticky trap (1000 Nos.)	5000
		Neem oil (200 L)	35
		IIHR-Neem Soap (150 kg)	200
		IIHR-Pongamia Soap (150 kg)	5 kg
		EPN (100 kg)	150
		Pheromone trap (1000 Nos.)	350
		VAM (1000 Kg)	900

3.B1. Abstract of interventions undertaken

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions									Supply of bio products			
				Title of OFT if any	Title of FLD if any	Number of Training (farmers)	Number of Training (Youths)	Number of Training (extension personnel)	Extension activities (No.)	Supply of seeds (Qtl.)	Supply of planting materials (No.)	Supply of livestock (No.)	No.	Kg		
1.	Bio-Intensive Pest Management	Small Cardamom	Heavy infestation of stem and capsule borer leading to heavy usage of PPC	Assessment of different bio-pesticides and parasites against cardamom stem and capsule borer, <i>Conogethes punctiferalis</i>	-	5	0	0	0	0	0	0	0	0	<i>Bacillus thuringiensis</i>	10 kg
															<i>Beauveria bassiana</i>	20 kg
															<i>Apanteles</i>	20000
															<i>Friona</i>	20000
2.	Bio-Intensive Disease Management	Cowpea	Heavy dosage of fungicides are applied for the control of cowpea anthracnose	Biological control of cowpea anthracnose disease, <i>Colletotrichum destructivum</i>	-	5	0	0	0	0	0	0	0	0	<i>Pichia guilliermondii</i>	12.5 L
															<i>Hanseniaspora uvarum</i>	12.5 L
															<i>Trichoderma harzianum</i>	12.5 Kg
3.	Bio-Intensive Pest Management	Cowpea	Severe incidence of sucking pests	Assessment of different biological control agents for the management of sucking pests in cowpea	-	5	0	0	0	0	0	0	0	0	<i>Lecanicillium saksenae</i>	1.5 kg
															Nanma	1L
															IIHR neem soap	2 kg
4.	Bio-Intensive Disease Management	Cucurbits	Heavy dosage of fungicides are applied for the control of downy mildew	Assessment of different biological control agents for the management of downy mildew (<i>Pseudoperonospora cubensis</i>) on cucurbits	-	5	0	0	0	0	0	0	0	0	Spray extract of licorice	10 L
															Spray Pseudomonas	15L
															Spray Effective Microorganisms	5L

5.	Drought Management	Small cardamom & Black pepper	Reduce production and productivity in all crops	-	Popularization of Pink Pigmented Facultative Methyloprophs (PPFMs) , to protect crops Small cardamom, Black pepper and vegetables from heat and drought condition	10	0	0	0	0	0	0	Lime	200kg
													Azospirillum	10 kg
													VAM	20 kg
													CAN	10 kg
													M:N Mixture	2.5 kg
													Blue sticky trap	20
													Neem oil	7.5L
													EPN	6500
													Trichoderma	25 L
													Pseudomonas	25L
													Methylobacterium	10L
6.	Bio-Intensive Pest Management	Vegetables	Famers unawareness of ecological engineering for pest management	-	Ecological engineering methods for the management of pests of vegetables	5	0	0	0	0	0	0	Radish , Sunflower , marigold, maize, mustard, sinia, tulsi seeds, Beet root	5kg
7.	Integrated Disease Management	Banana	Severe incidence of Panama wilt in banana	-	Integrated Disease Management of Panama wilt of banana in Idukki district	5	0	0	0	0	0	0	Pseudomonas	20 kg
													Hexaconazole	2 L
8.	Varietal Evaluation	Yard Long Bean	Lack of High Yielding Varieties	Assessment of high yielding yard long bean varieties for Idukki district	-	2	0	0	0	0.01	0	0	<i>Pseudomonas</i>	10 litres
													<i>Trichoderma</i>	10 litres
9.	Alternative media for mushroom production	Oyster Mushroom	Less availability of paddy straw	-	Oyster mushroom production using banana pseudostem waste and value addition	1	1	0	0	0.2	0	0	0	0
10.	Crop introduction	Big Onion	Lack of onion in homestead vegetable cultivation	-	Demonstration of Arka Kalyan variety of onion suitable for Idukki conditions	1	0	0	0	0.01	0	0	<i>Pseudomonas</i>	10 litres
													<i>Trichoderma</i>	10 litres
11.	Disease Management	Brinjal	High incidence of wilt disease in solanaceous crops	-	Demonstration on the Performance of Grafted Seedlings of Solanaceous Crops (Brinjal)	1	0	0	0	0.01	0	0	<i>Pseudomonas</i>	10 litres
													<i>Trichoderma</i>	10 litres
12.	Integrated Nutrient Management	Bitter gourd	Micronutrient deficiency	Assessment of the effect of zinc and Boron on the yield of bitter gourd in comparison with vegetable top-up	-	5	0	0	FAS-8 FV- 3	0	0	0	0	0

13.	Varietal Evaluation	Cassava	Non-availability of mosaic resistant varieties	Assessment of different varieties of tapioca for resistance of cassava mosaic virus disease in high ranges	-	5	0	0	FAS-6 FV- 4	0	0	0	0	0
14.	Crop diversification	Amorphophallus	Non-availability of acrid free variety	-	Demonstration of Acrid free variety Gajendra of Amorphophallus in high ranges	5	0	0	FAS-8 FV- 3	0	50 kg	0	0	0
15.	Integrated Nutrient Management	Banana	Secondary and Micronutrient deficiency	-	Demonstration of Ayar in Banana	10	0	0	FAS-15 FV-5	0	0	0	0	0
16.	Crop Diversification	Tapioca	Non availability of K efficient variety	-	Demonstration of K efficient Variety in Tapioca-Sree Pavitra	5	0	0	FAS-8 FV-5	0	250 setts	0	0	0
17.	INM	Cardamom	Unscientific Nutrient Management	-	Integrated Nutrient Management in Cardamom	5	0	0	FAS-7 FV- 6	0	0	0	0	0
18.	-	Vegetables	Improper kitchen waste disposal	-	Low cost bio-compost bin for kitchen waste management	2	0	0	6	0	0	0	EM Solution	14 litre
19.	Nutrition Management	Azolla	Shortage of fodder	-	Incorporation of Azolla feed for improving milk production in dairy cattle	4	0	0	Field visit-3 Method demonstration -2	Azolla seeds	0	0	0	0
20.	Feed and fodder management	Hybrid dairy cattle	Lack of nutritious, Palatable high yielding fodder variety for dairy farming	Assessing the performance of hybrid Napier varieties in High Ranges of Idukki district	-	3	0	0	Field visit-3 Method demonstration-2	0	Fodder Slips (Co3,Co4 and Co5)	0	0	0
21.	Disease management	Hybrid dairy cattle	Occurrence of Milk fever disease	-	Demonstration on feeding Anionic Mixture to prevent Milk Fever in dairy cows	3	0	0	Field visit-3	Anionic Mixture	0	0	0	0
22.	Evaluation of Breeds	Vigova Duck	Unawareness about new breeds	-	Popularization of Vigova Super M duck in Idukki district	3	0	0	Field visit-3	Two week old ducklings supplements feed	0	0	0	0

3.B2. Details of technology used during reporting period

S. No	Title of Technology	Source of technology	Crop/enterprise	No. of programmes conducted			
				OFT	FLD	Training	Others (Specify)
1	2	3	4	5	6	7	8
1.	Assessment of different bio-pesticides and parasites against cardamom stem and capsule borer, <i>Conogethes punctiferalis</i>	ICRI & NBAIR	Small Cardamom	5	0	6	FAS – 5 Field Visits - 12 Diagnostic Visits - 2 Method Demo - 5
2.	Biological control of cowpea anthracnose disease, <i>Colletotrichum destructivum</i>	NBAIR	Cowpea	5	0	3	FAS – 16 Field Visits - 16 Diagnostic Visits - 4 Method Demo - 5

3.	Assessment of different biological control agents for the management of sucking pests in cowpea	KAU	Cowpea	5	0	2	FAS – 4 Field Visits - 5 Diagnostic Visits - 2 Method Demo - 5
4.	Assessment of different biological control agents for the management of downy mildew (<i>Pseudoperonospora cubensis</i>) on cucurbits	JKI, Institute of Biological Control, Darmstadt, Germany	Cucurbits	5	0	5	FAS – 5 Field Visits - 12 Diagnostic Visits - 2 Method Demo - 5
5.	Popularization of Pink Pigmented Facultative Methyloprophs (PPFMs), to protect crops Small cardamom, Black pepper and vegetables from heat and drought condition	TNAU & ICRI	Small Cardamom	0	10	10	FAS -10 Field Visits - 5 Diagnostic Visits - 4 Method Demo - 10
6.	Ecological engineering methods for the management of pests of vegetables	NIPHM	Vegetables	0	5	3	FAS – 2 Field Visits - 2 Diagnostic Visits - 2 Method Demo - 5
7.	Integrated Disease Management of Panama wilt of banana in Idukki district	KAU	Banana	0	5	2	FAS – 5 Field Visits - 4 Diagnostic Visits - 2 Method Demo - 5
8.	Assessment of high yielding yard long bean varieties for Idukki district	KAU-2006, 2015 & IIHR, 2015	Yard Long Bean		5	0	2 FAS – 5 Field Visits - 6 Diagnostic Visits - 2
9.	Oyster mushroom production using banana pseudostem waste and value addition	KAU-2005	Oyster Mushroom	0	5	2	FAS – 5 Field Visits - 6 Diagnostic Visits - 2
10.	Demonstration of Arka Kalyan variety of onion suitable for Idukki conditions	IIHR, 2014	Arka Kalyan	0	5	2	FAS – 5 Field Visits - 6 Diagnostic Visits - 2
11.	Demonstration on the Performance of Grafted Seedlings of Solanaceous Crops (Brinjal)	KAU, 2012	Brinjal	0	3	2	FAS – 5 Field Visits - 6
12.	Assessment of the effect of zinc and Boron on the yield of bitter gourd in comparison with vegetable top-up	KAU	Bitter gourd	5	0	1	FAS-8 FV- 3
13.	Assessment of different varieties of tapioca for resistance of cassava mosaic virus disease in high ranges	CTCRI	Cassava	5		1	FAS-6 FV- 4
14.	Integrated Nutrient Management in Cardamom	ICRI	Cardamom	0	10	5	FAS-7 FV- 6
15.	Demonstration of Acrid free variety Gajendra of Amorphophallus in high ranges	CTCRI & KAU	Amorphophallus	0	10	0	FAS-8 FV- 3
16.	Demonstration of potassium efficient variety of Tapioca -Sree Pavitra	CTCRI	Cassava	0	10	1	FAS-5 FV- 3
17.	Demonstration of Ayar in Banana	KAU	Banana	0	10	1	FAS-4 FV- 2
18.	Low cost bio-compost bin for kitchen waste management	Innovative technology by Mr. V.P. Davis, Chalakkudy	Vegetables	0	1	2	FAS-10 FV- 6
19.	Assessing the performance of hybrid Napier varieties in High Ranges of Idukki district	TNAU	Hybrid dairy cattle	1	0	3	Field visit-3 Method demo-2
20.	Incorporation of Azolla feed for improving milk production in dairy cattle	TANUVAS & KAU	Fodder	0	1	4	Field visit-3 Method demo-2
21.	Popularization of Vigova Super M duck in Idukki district	CPDO, Hessaraghatta	Poultry-Duck	0	1	3	Field visit-3
22.	Demonstration on feeding Anionic Mixture to prevent Milk Fever in dairy cows	TANUVAS	Hybrid dairy cattle	0	1	3	Field visit-3

3.B2 contd..

No. of farmers covered															
OFT				FLD				Training				Others (Specify)			
General		SC/ST		General		SC/ST		General		SC/ST		General		SC/ST	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
5	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0
2	3	0	0	5	0	0	0	0	0	0	0	0	0	0	0

3	2	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
2	3	0	0	0	0	0	0	8	8	0	0	0	0	0	0	0
3	2	0	0	0	0	0	0	10	8	0	0	0	0	0	0	0
0	0	0	0	5	5	0	0	68	21	6	8	0	0	0	0	0
0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	7	3	1	2	12	4	0	0	0	0	0	0	0
0	0	0	0	7	3	0	0	8	8	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	28	0	0	0	10	0	0	0	0
0	0	0	0	5	0	0	0	31	0	0	0	12	0	0	0	0
0	0	0	0	5	0	0	0	19	0	0	0	10	0	0	0	0
0	0	0	0	3	0	0	0	18	0	0	0	6	0	0	0	0
0	0	0	0	0	2	0	0	9	17	0	0	0	0	0	0	0
2	3	0	0	0	0	0	0	53	47	0	0	0	0	0	0	0
0	0	0	0	4	6	0	0	18	49	0	0	0	0	0	0	0
0	0	0	0	6	4	0	0	48	68	0	0	0	0	0	0	0
0	0	0	0	14	6	0	0	34	23	0	0	0	0	0	0	0

PART IV - On Farm Trial

4.A1. Abstract on the number of technologies assessed in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient Management					1	1		1		3
Varietal Evaluation					1				3	4
Integrated Pest Management				2						2
Integrated Crop Management										
Integrated Disease Management					2					2
Small Scale Income Generation Enterprises										
Weed Management										
Resource Conservation Technology										
Farm Machineries										
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
Total				2	4	1		1	3	11

4.A2. Abstract on the number of technologies refined in respect of crops: Nil.

4.A3. Abstract on the number of technologies assessed in respect of livestock enterprises

Thematic areas	Cattle	Poultry	Piggery	Rabbit	Fisheries	TOTAL
Evaluation of Breeds						
Nutrition Management						
Disease of Management						
Value Addition						
Production and Management						
Feed and Fodder		1		0	0	1
Small Scale income generating enterprises						
TOTAL		1		0	0	1

4.A4. Abstract on the number of technologies refined in respect of livestock enterprises

Thematic areas	Cattle	Poultry	Piggery	Rabbit	Fisheries	TOTAL
Evaluation of Breeds						
Nutrition Management						
Disease of Management						
Value Addition						
Production and Management						
Feed and Fodder						
Small Scale income generating enterprises						

TOTAL						
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4.B. Achievements on technologies Assessed and Refined

4.B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trial covering all the Technological Options)
Integrated Nutrient Management	Bitter gourd	Assessment of the effect of zinc and Boron on the yield of bitter gourd in comparison with vegetable top-up	15	5	0.12
Varietal Evaluation	Cassava	Assessment of different varieties of tapioca for resistance of cassava mosaic virus disease in high ranges	20	5	0.06
	Yard Long Bean	Assessment of high yielding yard long bean varieties for Idukki district	5	5	0.2
Integrated Pest Management	Small Cardamom	Assessment of different bio-pesticides and parasites against cardamom stem and capsule borer, <i>Conogethes punctiferalis</i>	5	5	0.25
	Cowpea	Assessment of different biological control agents for the management of sucking pests in cowpea	5	5	0.10
Integrated Crop Management					
Integrated Disease Management	Cowpea	Biological control of cowpea anthracnose disease, <i>Colletotrichum destructivum</i>	5	5	0.10
	Cucurbits	Assessment of different biological control agents for the management of downy mildew (<i>Pseudoperonospora cubensis</i>) on cucurbits	5	5	0.25
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total			60	35	1.08

4.B.2. Technologies Refined under various Crops: Nil.

4.B.3. Technologies assessed under Livestock and other enterprises

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Evaluation of breeds				
Nutrition management				

Disease management				
Value addition				
Production and management				
Feed and fodder	Dairy Cattle	Assessing the performance of hybrid Napier varieties in High Ranges of Idukki district	5	5
Small scale income generating enterprises				
Total			5	5

4.B.4. Technologies Refined under Livestock and other enterprises : NIL

4.C1.Results of Technologies Assessed

Results of On Farm Trial

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Source of technology	Yield	Unit of yield	Observations other than yield	Net Return Rs. / unit	BC Ratio	Remarks if any
1	2	3	4	5	6	7	8	9	10	11	12	13
Small cardamom	Perennial	Heavy infestation of stem and capsule borer leading to heavy usage of PPC	Assessment of different bio-pesticides and parasites against cardamom stem and capsule borer, <i>Conogethes punctiferalis</i>	5	1. Farmers practice (Recommended Insecticides) 2. Spray of <i>Bacillus thuringiensis</i> @ 2g/L 3. Spray of <i>Beauveria bassiana</i> @ 5g/L 4. Release of <i>Apanteles</i> sp @ 20,000/ha 5. Release of <i>Friona</i> sp @ 20,000/ha	ICRI & NBAIR	830	Kg/ha	-	442000	2.65	-
Cowpea	Field crop	Heavy dosage of fungicides are applied for the control of cowpea anthracnose	Biological control of cowpea anthracnose disease, <i>Colletotrichum destructivum</i>	5	1. Farmers practice (Recommended Fungicides) 2. <i>Pichia guilliermondii</i> (NBAIR Strains)@10ml/L 3. <i>Hanseniaspora uvarum</i> (NBAIR Strains) @10ml/L 4. <i>Trichoderma harzianum</i> (NBAIR Strains) @10g/L	NBAIR	825	Kg/ha	-	171000	2.30	-
Cowpea	Field crop	Severe incidence of sucking pests	Assessment of different biological control agents for the management of sucking pests in cowpea	5	1. Farmers practice (Recommended Insecticides) 2. Spraying of <i>Lecanicillium sakseae</i> @ 15g/lit 3. Spraying of Nanma @ 7-10ml/lit 3 times 4. Spraying of IIHR neem soap @ 10 g/lit	KAU, CTCRI & IIHR	760	Kg/ha	-	153000	1.89	-
Cucurbits	Horticulture crop	Heavy dosage of fungicides are applied for the control of downy mildew	Assessment of different biological control agents for the management of downy mildew (<i>Pseudoperonospora cubensis</i>) on cucurbits	5	1. Farmers practice (Recommended fungicide) 2. Spray extract of licorice @/20ml/lit of water from 10-day intervals between each spray 3. Spray <i>Pseudomonas</i> @5ml/lit of water from 10-day intervals between each spray 4. Spray Effective Microorganisms @ 5ml/lit of water from 10-day intervals between each spray	JKI, Institute of Biological Control, Darmstadt, Germany, KAU & TNAU	1300	Kg/ha	-	172000	2.40	-
Yard Long Bean	Annual	Lack of High Yielding Varieties	Assessment of high yielding yard long bean varieties for Idukki district	5	1. Farmers practice (Local Varieties)	KAU-2006, 2015 & IIHR, 2015	16.6	t/ha	-	49000	1.25	-
					2. Vellayani Jyothika		19.5	t/ha	-	92500	1.46	-
					3. Githika		20.8	t/ha	-	112000	1.56	-
					4. Arka Mangala		23.5	t/ha	-	152500	1.76	-
Bitter gourd	Commercial	Micronutrient deficiency	Assessment of the effect of zinc and Boron on the yield of bitter gourd in comparison with vegetable top-up	5	TO1 - No micronutrient application (FP)	-	15	t/ha	-	120000	1.5	Micronutrient top up spray gave better result in flowering
					TO2 - Application of ZnSO ₄ (0.5%) + Boron (0.1%) based	KAU	18	t/ha	-	155212	1.67	

					on soil test along with recommended dose of NPK							
					TO3 - Foliar spray of micronutrient top up at 30, 45, 60 days after sowing along with recommended dose of NPK	IIHR	20	t/ha	-	215000	1.98	
Cassava	Commercial	Non-availability of mosaic resistant varieties	Assessment of different varieties of tapioca for resistance of cassava mosaic virus disease in high ranges	5	TO1 – Local Variety (FP)	-	20	t/ha	-	105000	1.40	Swarna was found resistant to CMVD
					TO2 – Sree Jaya	CTCRI	25	t/ha	-	159980	1.58	
					TO3 – Vellayani Hraswa	KAU	30	t/ha	-	300000	1.87	
					TO4 – Suvarna	CTCRI	35	t/ha	-	409980	1.98	
Dairy cattle	Homestead	Lack of nutritious, Palatable high yielding fodder variety for dairy farming	Assessing the performance of hybrid Napier varieties in High Ranges of Idukki district	5(40) cents	Technology option 1:- (Farmers Practice-) Hybrid Napier – Co3	TNAU	On going					
					Technology option 2 :- Cultivation of Hybrid Napier – Co4	TNAU						
					Technology option 3 :- Cultivation of Hybrid Napier – Co5	TNAU						

4.C2. Details of Successfully completed / concluded technology assessment (support with necessary summary of data and photographs)

1)

1. Title of Technology Assessed: **Assessment of different bio-pesticides and parasites against cardamom stem and capsule borer, *Conogethes punctiferalis***
2. Performance of the Technology on specific indicators: *Bacillus thuringiensis var Kurstaki* was also found to be effective when combination with *Beauveria bassiana*.
3. Specific Feedback from farmers: *Bacillus thuringiensis var Kurstaki* sprays in combination with the releases of parasites *Apanteles sp* and *Friona sp* gave effective control of stem and capsule borer.
4. Specific Feedback from Extension personnel and other stakeholders: *Bacillus thuringiensis var Kurstaki* was effective against in egg and first instar of larvae. *Apanteles sp* and *Friona sp* was effective against 3rd & 4th instar larvae and *Beauveria bassiana* was effective controller of adult.
5. Feedback to Research System based on results and feedback received: Apply of different bio-pesticides and parasites against cardamom stem and capsule borer can reduce the pesticide application.

2)

1. Title of Technology Assessed: **Biological control of cowpea anthracnose disease, *Colletotrichum destructivum***
2. Performance of the Technology on specific indicators: The treatment in order of merit was with *Hanseniaspora uvarum* (Y73) with 14.25 per cent DI and 72.78 per cent disease control over untreated check. *Pichia guilliermondii* (Y12) showed 18.62 % DI with 59.81% disease control.
3. Specific Feedback from farmers: *Hanseniaspora uvarum* showing least percentage of anthracnose disease.
4. Specific Feedback from Extension personnel and other stakeholders: HU should be produce locally so that farmers can use regularly their field.
5. Feedback to Research System based on results and feedback received: Treatment with respect of yield was *Hanseniaspora uvarum* (Y73) (95.00 q/ha).

3)

1. Title of Technology Assessed: **Assessment of different biological control agents for the management of sucking pests in cowpea**

2. Performance of the Technology on specific indicators: Spraying of *Lecanicillium saksenae* was effective controlled of sucking pests.

3. Specific Feedback from farmers: Nil.

4. Specific Feedback from Extension personnel and other stakeholders: Nil.

5. Feedback to Research System based on results and feedback received: Nil.

4)

1. Title of Technology Assessed: **Assessment of different biological control agents for the management of downy mildew (*Pseudoperonospora cubensis*) on cucurbits**

2. Performance of the Technology on specific indicators: The leaf extract of *Glycyrrhiza glabra* (licorice) is a highly potent alternative control agent against cucumber downy mildew, which is caused by the Oomycete *Pseudoperonospora cubensis*.

3. Specific Feedback from farmers: Effective disease controller.

4. Specific Feedback from Extension personnel and other stakeholders: Nil.

5. Feedback to Research System based on results and feedback received: Protective licorice extract application results in stable high efficacies even under semi-commercial conditions.

5)

1. Title of Technology Assessed: **Assessment of high yielding yard long bean varieties for Idukki district**

2. Performance of the Technology on specific indicators: High yield of 23.5 t/ha in comparison with 16.6 t/ha of local.

3. Specific Feedback from farmers: High yield, easily harvestable, good consumer preference.

4. Specific Feedback from Extension personnel and other stakeholders: Highly recommended for high ranges, but needs to be harvested at the correct time and at 3 days interval or it gets over matured.

5. Feedback to Research System based on results and feedback received: Promising variety with good cooking qualities.

6)

1. Title of Technology Assessed: **Assessment of the effect of zinc and Boron on the yield of bitter gourd in comparison with vegetable top-up**

2. Performance of the Technology on specific indicators:

a. No of days for attaining first flowering - Earliness in female flower initiation in TO3

b. Girth of the plant - No significant difference

c. Ht of the plant - No significant difference

d. Yield (kg/ha) - Gross yield is increased in TO3

3. Specific Feedback from farmers: Earliness in female flower initiation in TO3.

4. Specific Feedback from Extension personnel and other stakeholders: Better crop stand in TO3 and Gross yield.

5. Feedback to Research System based on results and feedback received: Earliness in female flower initiation in TO3, Better crop stand in TO3 and Gross yield.

7)

1. Title of Technology Assessed: **Assessment of different varieties of tapioca for resistance of cassava mosaic virus disease in high ranges**

2. Performance of the Technology on specific indicators:

a. Average weight of tuber- increased in TO-4

b. Yield (kg/ha) increased in TO-4

3. Specific Feedback from farmers: Swarna was found resistant to cassava mosaic virus disease.

4. Specific Feedback from Extension personnel and other stakeholders: Swarna was found resistant to cassava mosaic virus disease.

5. Feedback to Research System based on results and feedback received: Swarna was found resistant to cassava mosaic virus disease.

8)

1. Title of Technology Assessed: **Assessing the performance of hybrid Napier varieties in High Ranges of Idukki district**
2. Performance of the Technology on specific indicators: Very good Effect.
3. Specific Feedback from farmers: Nil.
4. Specific Feedback from Extension personnel and other stakeholders: Nil.
5. Feedback to Research System based on results and feedback received: Nil.

4.D1. Results of Technologies Refined: Nil.**4.D.2. Details of Technologies refined:**

1. Title of Technology Refined
2. Performance of the Technology on specific indicators
3. Specific Feedback from farmers
4. Specific Feedback from Extension personnel and other stakeholders
5. Feedback to Research System based on results/feedback received

PART V - FRONTLINE DEMONSTRATIONS**5.A. Summary of FLDs implemented**

Sl. No.	Category	Farming Situation	Season	Crop	Variety/breed	Hybrid	Thematic area	Technology Demonstrated	Area (ha)		Farmers (No.)		Farmers (No.)	
									Proposed	Actual	SC/ST	Others	Small/Marginal	Others
	Oilseeds													
	Pulses													
	Cereals													
	Millets													
	Vegetables	Irrigated	Kharif	Cabbage	NS-160	-	Bio-intensive management	Ecological engineering methods for the management of pests of vegetables	5	5	15	0	10	0
		Irrigated	Kharif	Brinjal	Swetha	-	Disease Management	Demonstration on the Performance of Grafted Seedlings of Solanaceous Crops (Brinjal)	0.6	0.6	0	3	3	0
	Flowers													
	Ornamental													
	Fruit	Irrigated	Kharif	Banana	Nendran	-	IDM	Integrated Disease Management of Panama wilt of banana in Idukki district	1	1	0	0	5	0
		Commercial	Annual	Banana	Nendran	-	Integrated Nutrient Management	Demonstration of Ayar in Banana	0.025	0.025	0	10	10	0

Spices and condiments	Rainfed	Annual	Small cardamom	Njallani	-	ICM	Integrated Crop Management and Popularization of Pink Pigmented Facultative Methylophs (PPFMs) for Small cardamom from heat and drought conditions	1	M	L	L	Perennial	0
	Commercial	Perennial	Cardamom	Njallani	-	INM	Integrated Nutrient Management in Cardamom	1.0	1.0		10	10	0
	Commercial												
Medicinal and aromatic													
Fodder													
Plantation													
Fibre													
Dairy													
	Mixed Farming	Throughout the year	Dairy Cattle	Jersey and HF	Cross bred	Feed and Fodder	Incorporation of Azolla feed for improving milk production in dairy cattle	1 cents	1 cents	0	10	10	0
	Mixed Farming	Throughout the year	Dairy Cattle	Jersey and HF	Cross bred	Nutrition Management	Demonstration on feeding Anionic Mixture to prevent Milk Fever in dairy cows	20	20	0	20	20	0
Poultry													
Rabbitry													
Piggery													
Sheep and goat													
Duckery	Mixed Farming	Throughout the year	Poultry	Vigova Duck	Hybrid breed	Evaluation of breeds	Popularisation of Dual purpose Vigova Super M duck in Idukki district	10(10 bird farmer)	10(10 bird/farmer)	0	10	10	-
Common carps													
Mussels													
Ornamental fishes													

Oyster mushroom														
	Commercial	Annual	Oyster Mushroom	Florida		Alternate Media	Oyster mushroom production using banana pseudostem waste and value addition	5	5	0	5	5	0	
Button mushroom														
Vermicompost														
Sericulture														
Apiculture														
Implements														
Others (Vegetables)	Homestead	Annual	Big Onion	Arka Kalyan	-	Varietal introduction	Demonstration of Arka Kalyan variety of onion suitable for Idukki conditions	5	5	0	5	0	0	
Others (Tuber crops)	Commercial	Annual	Amorphophallus	Gajendra	-	Varietal introduction	Demonstration of Acrid free variety Gajendra of Amorphophallus in high ranges	0.04	0.04	0	10	10	0	
	Commercial	Annual	Tapioca	Sree Pavitra	-	Varietal introduction	Demonstration of potassium efficient variety of Tapioca -Sree Pavitra	0.04	0.04	0	10	10	0	
Others (Vegetables)	Homestead	Throughout the year	vegetables	-	-	Kitchen waste management	Low cost bio-compost bin for kitchen waste management	2 units	2 units	0	2	0	0	
Others (specify)														

5.A. 1. Soil fertility status of FLDs plots, if analysed

Sl. No.	Category	Farming Situation	Season and Year	Crop	Variety/breed	Hybrid	Thematic area	Technology Demonstrated	Season and year	Status of soil			Previous crop grown
										N	P	K	
	Oilseeds												
	Pulses												
	Cereals												
	Millets												
	Vegetables	Irrigated	Kharif	Cabbage	NS-160	-	Bio-intensive management	Ecological engineering methods for the management of pests of vegetables	Kharif - 2017	M	M	L	Carrot
	Flowers												

	Ornamental																			
	Fruit																			
		Irrigated	Kharif	Banana	Nendran	-	IDM													
		Commercial	Annual	Banana	Nendran		Integrated Nutrient Management													
	Spices and condiments																			
		Commercial	Perennial	Cardamom	Njallani		INM													
	Commercial																			
	Medicinal and aromatic																			
	Fodder																			
	Plantation																			
	Fibre																			
	Tuber crops	Commercial	Annual	Amorphophallus	Gajendra		Varietal introduction													
	Tuber crops	Commercial	Annual	Tapioca	Sree Pavitra		Varietal introduction													

5.B. Results of FLDs

5.B.1. Crops

Crop	Name of the technology demonstrated	Variety	Hybrid	Farming situation	No. of Demo.	Area (ha)	Yield (q/ha)				% Increase	*Economics of demonstration (Rs./ha)				*Economics of check (Rs./ha)					
							Demo			Check		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR		
							H	L	A												
Oilseeds																					
Pulses																					
Cereals																					
Millets																					
Vegetables	Ecological engineering methods for the management of pests of vegetables	NS-160	-	Irrigated	5	5ha	3.5	3.2	3.5	2.2	59	11000	175000	65000	1.59	147000	162000	15000	1.10		
	Demonstration of Arka Kalyan variety of onion suitable for Idukki conditions	Arka Kalyan		Irrigated	5	0.5	Crop not yet harvested														
	Demonstration on the Performance of Grafted Seedlings of Solanaceous Crops (Brinjal)	Swetha		Irrigated	3	0.6	Crop not over														

Flowers																				
Ornamental																				
Fruit																				
	Integrated Disease Management of Panama wilt of banana in Idukki district	Nendran	-	Irrigated	5	3ha	9.25	8.65	8.5	7.0	31.0	161000	210000	49000	1.30	201000	22000	19000	1.09	
	Demonstration of Ayar in Banana	-	-	Rainfed	10		0.025	300	292	296	185	40	151000	302095	151095	2.0	144050	168300	24250	1.17
Spices and condiments																				
	Integrated Crop Management and Popularization of Pink Pigmented Facultative Methyloprophs (PPFMs) for Small cardamom from heat and drought conditions	Njallani	-	Rainfed	5	3ha	8.5	8.0	7.25	5.7	49	352000	755000	403000	2.14	382000	672000	290000	1.75	
	Integrated Nutrient Management in Cardamom	Njallani		Perennial	10	1	9.8	10.0	9.9	8.0	25.0	250000	653600	403600	2.6	218000	414200	196200	1.90	
Commercial																				
Fibre crops like cotton																				
Medicinal and aromatic																				
Fodder																				
Plantation																				
Fibre																				
Others (Tuber crops)	Demonstration of Acrid free variety Gajendra of Amorphophallus in high ranges	Gajendra	-	Commercial	10		0.04	400	350	375	-300	22.0	100000	220000	120000	2.2	99000	150000	51000	1.5
Others (Tuber crops)	Demonstration of potassium efficient variety of Tapioca -Sree Pavitra	Sree Pavitra	-	Commercial	10		0.04	250	300	275	200	27	220000	500000	280000	2.3	210000	400000	190000	1.9
Others (Vegetables)	Low cost bio-compost bin for kitchen waste management	Local	-	Homestead	2 units	2 units	0	0	0	0	0	10950	18000	7050	1.64	0	0	0	0	
Others (pl.specify)																				

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

H – Highest Yield, L – Lowest Yield A – Average Yield

Data on additional parameters other than yield (viz., reduction of percentage in weed/pest/diseases etc.)

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check

5.B.2. Livestock and related enterprises

Type of livestock	Name of the technology demonstrated	Breed	No. of Demo	No. of Units	Yield (kg/animal)				% Increase	*Economics of demonstration (Rs./unit)				*Economics of check (Rs./unit)				
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR	
					H	L	A											
Dairy																		
	Demonstration on feeding Anionic Mixture to prevent Milk Fever in dairy cows	Jersey and HF	20	20	18	13	15	14	7.14	13610	30420	16810	2.24	14600	23940	8230	1.63	
	Incorporation of Azolla feed for improving milk production in dairy cattle	Jersey and HF	10	10	23	19	20	18	11.11	400	788	388	1.99	219	357	138	1.63	
Poultry																		
Rabbitry																		
Piggery																		
Sheep and goat																		
Duckery	Popularization of Dual purpose Vigova Super M duck in Idukki district	Vigova Duck breed	10	10 (10 bird / farmer)	On Going													
Others (pL.specify)																		

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

Data on additional parameters other than yield (viz., reduction of percentage diseases, increase in conceiving rate, inter-calving period etc.)

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Check if any

5.B.3. Fisheries : NIL

5.B.4. Other enterprises

Enterprise	Name of the technology demonstrated	Variety/ species	No. of Demo	Units/ Area {m ² }	Yield				% Increase	*Economics of demonstration (Rs./unit) or (Rs./m ²)				*Economics of check (Rs./unit) or (Rs./m ²)			
					Demo			Check if any		Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
					H	L	A										
Oyster mushroom	Oyster mushroom production using banana pseudostem waste and value addition	Florida	5	5	0.75	0.55	0.65	0.98	-33%	63	162.5	99.5	2.57	98	245	110	2.5
Button mushroom																	
Vermicompost																	
Sericulture																	
Apiculture																	

Others (pl.specify)																			
------------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

** BCR= GROSS RETURN/GROSS COST

H-High L-Low, A-Average

Data on additional parameters other than yield (viz., additional income realized, employment generation, quantum of farm resources recycled etc.)

Data on other parameters in relation to technology demonstrated		
Parameter with unit	Demo	Local

5.B.5. Farm implements and machinery: NIL

5.B.6. Extension and Training activities under FLD

Sl. No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	8	158	-
2	Farmers Training	14	203	-
3	Media coverage	1	60	-
4	Training for extension functionaries	4	88	-
5	Others (FAS)	18	18	-
6	Others (Please specify)			

PART VI – DEMONSTRATIONS ON CROP HYBRIDS

Demonstration details on crop hybrids: NIL.

PART VII. TRAINING

7.A.. Training of Farmers and Farm Women including sponsored training programmes (On campus)

Area of training	No. of Courses	No. of Participants												
		General			SC/ST			Grand Total						
		Male	Female	Total	Male	Female	Total	Male	Female	Total				
Crop Production														
Weed Management														
Resource Conservation Technologies														
Cropping Systems														
Crop Diversification														
Integrated Farming														
Micro Irrigation/Irrigation														
Seed production														
Nursery management														
Integrated Crop Management														
Soil and Water Conservation														
Integrated Nutrient Management														
Production of organic inputs														
Others (pl.specify)														
Horticulture														
a) Vegetable Crops														
Production of low value and high volume crop														

Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Others (pl.specify)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl.specify)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl.specify)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl.specify)										
Soil Health and Fertility Management										
Soil fertility management	2	55	20	75	10	12	22	65	32	97

Integrated water management										
Integrated nutrient management	1	45	25	70	0	0	0	45	25	70
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops	1	35	10	45	0	0	0	35	10	45
Nutrient use efficiency										
Balanced use of fertilizers										
Soil and water testing										
Others (pl.specify)										
Livestock Production and Management										
Dairy Management	1	7	10	17	0	0	0	7	10	17
Poultry Management	1	8	13	21	0	0	0	8	13	21
Piggery Management										
Rabbit Management										
Animal Nutrition Management	1	4	14	18	0	0	0	4	14	18
Animal Disease Management	1	6	10	16	0	0	0	6	10	16
Feed and Fodder technology	1	7	10	17	0	0	0	7	10	17
Production of quality animal products										
Others (pl.specify)										
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking	2	15	22	37	0	0	0	15	22	37
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	2	49	31	80	36	4	40	85	35	120
Women empowerment										
Location specific drudgery production										
Rural Crafts	2	0	21	21	0	18	18	0	39	39
Women and child care										
Others (pl.specify)										
Agril. Engineering										
Farm machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl.specify)										

Plant Protection										
Integrated Pest Management	3	90	40	130	20	18	32	110	58	168
Integrated Disease Management	2	24	16	40	0	0	0	24	16	40
Bio-control of pests and diseases	1	19	0	0	0	0	0	19	0	19
Production of bio control agents and bio pesticides	2	45	0	12	0	0	0	57	0	57
Others (pl.specify)										
Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl.specify)										
Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production	3	82	24	106	0	0	0	82	24	106
Bio-pesticides production	2	89	21	102	0	0	0	89	21	102
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom production										
Apiculture	3	45	10	65	0	0	0	45	10	65
Others (pl.specify)										
CapacityBuilding and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										

Entrepreneurial development of farmers/youths										
Others (pl.specify)										
Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (Pl. specify)										
TOTAL	33	625	297	872	66	52	112	703	349	1054

7.B Training of Farmers and Farm Women including sponsored training programmes (Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop Production										
Weed Management										
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/Irrigation										
Seed production										
Nursery management										
Integrated Crop Management	4	0	0	0	99	6	105	99	6	105
Soil and Water Conservation										
Integrated Nutrient Management										
Production of organic inputs										
Others (pl.specify)										
Horticulture										
a) Vegetable Crops										
Production of low value and high volume crop										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl.specify)										
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										

Export potential fruits											
Micro irrigation systems of orchards											
Plant propagation techniques											
Others (pl.specify)											
c) Ornamental Plants											
Nursery Management											
Management of potted plants											
Export potential of ornamental plants											
Propagation techniques of Ornamental Plants											
Others (pl.specify)											
d) Plantation crops											
Production and Management technology											
Processing and value addition											
Others (pl.specify)											
e) Tuber crops											
Production and Management technology											
Processing and value addition											
Others (pl.specify)											
f) Spices											
Production and Management technology											
Processing and value addition											
Others (pl.specify)											
g) Medicinal and Aromatic Plants											
Nursery management											
Production and management technology											
Post harvest technology and value addition											
Others (pl.specify)											
Soil Health and Fertility Management											
Soil fertility management	1	20	9	29	0	0	0	20	9	29	
Integrated water management											
Integrated nutrient management	1	30	20	50	0	0	0	30	20	50	
Production and use of organic inputs											
Management of Problematic soils											
Micro nutrient deficiency in crops											
Nutrient use efficiency											
Balanced use of fertilizers	2	35	20	55	0	0	0	35	20	55	
Soil and water testing											
Others (pl.specify)											
Livestock Production and Management											
Dairy Management	2	92	30	122	0	0	0	92	30	122	
Poultry Management	3	152	90	242	0	0	0	152	90	242	
Piggery Management											

Rabbit Management										
Animal Nutrition Management	3	132	80	212	0	0	0	132	80	212
Animal Disease Management	3	122	110	232	0	0	0	122	110	232
Feed and Fodder technology	2	72	50	122	0	0	0	72	50	122
Production of quality animal products										
Others (pl.specify)										
Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking	6	27	123	150	7	7	14	34	130	164
Gender mainstreaming through SHGs	3	6	64	70	2	1	3	8	65	73
Storage loss minimization techniques										
Value addition	7	71	126	197	1	6	7	72	132	204
Women empowerment										
Location specific drudgery production										
Rural Crafts	3	0	28	28	0	16	16	0	44	44
Women and child care										
Others (pl.specify)										
Agril. Engineering										
Farm machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl.specify)										
Plant Protection										
Integrated Pest Management	18	504	194	698	89	20	109	593	214	807
Integrated Disease Management	12	245	62	307	71	18	89	316	80	396
Bio-control of pests and diseases	7	129	112	241	69	16	85	198	197	395
Production of bio control agents and bio pesticides	12	223	143	366	93	11	104	316	247	563
Others (pl.specify)										
Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										

Portable plastic carp hatchery											
Pen culture of fish and prawn											
Shrimp farming											
Edible oyster farming											
Pearl culture											
Fish processing and value addition											
Others (pl.specify)											

Production of Inputs at site											
Seed Production											
Planting material production	2	62	10	0	0	0	0	62	10	72	
Bio-agents production	4	79	25	104	45	41	86	124	66	190	
Bio-pesticides production	8	93	18	111	54	18	72	147	36	183	
Bio-fertilizer production											
Vermi-compost production	4	106	22	128	25	31	56	131	53	184	
Organic manures production											
Production of fry and fingerlings											
Production of Bee-colonies and wax sheets	2	0	0	0	112	79	191	112	79	191	
Small tools and implements											
Production of livestock feed and fodder											
Production of Fish feed											
Mushroom production											
Apiculture											
Others (pl.specify)											
CapacityBuilding and Group Dynamics											
Leadership development											
Group dynamics											
Formation and Management of SHGs											
Mobilization of social capital											
Entrepreneurial development of farmers/youths											
Others (pl.specify)											
Agro-forestry											
Production technologies											
Nursery management											
Integrated Farming Systems											
Others (Pl. specify)											
TOTAL	109	2200	1336	3464	667	270	937	2867	1768	4635	

7.C.Training for Rural Youths including sponsored training programmes (on campus)

Area of training	No. of Courses	No. of Participants									
		General			SC/ST			Grand Total			
		Male	Female	Total	Male	Female	Total	Male	Female	Total	
Nursery Management of Horticulture crops											

Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production	2	26	6	32	0	0	0	26	6	32
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts	3	21	25	46	0	26	26	21	72	93
Production of quality animal products										
Dairying	2	53	44	97	0	0	0	53	44	97
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
TOTAL	7	100	75	175	0	26	26	100	122	222

7.D. Training for Rural Youths including sponsored training programmes (off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										

Commercial fruit production											
Integrated farming											
Seed production											
Production of organic inputs											
Planting material production											
Vermi-culture											
Mushroom Production											
Bee-keeping											
Sericulture											
Repair and maintenance of farm machinery and implements											
Value addition											
Small scale processing											
Post Harvest Technology											
Tailoring and Stitching											
Rural Crafts	4	0	48	48	0	34	34	0	82	82	
Production of quality animal products											
Dairying	1	11	5	16	0	0	0	11	5	16	
Sheep and goat rearing											
Quail farming											
Piggery											
Rabbit farming											
Poultry production											
Ornamental fisheries											
Composite fish culture											
Freshwater prawn culture											
Shrimp farming											
Pearl culture											
Cold water fisheries											
Fish harvest and processing technology											
Fry and fingerling rearing											
Any other (pl.specify)											
TOTAL	5	11	53	64	0	34	34	11	87	98	

7.E.Training programmes for Extension Personnel including sponsored training programmes (on campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management	2	25	17	42	0	0	0	25	17	42
Integrated Nutrient management	2	25	15	40	0	0	0	25	15	40
Rejuvenation of old orchards										
Protected cultivation technology										

Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security	1	30	25	55	0	0	0	30	25	55
Any other (pl.specify)										
Total	5	80	57	137	0	0	0	80	57	137

7.F. Training programmes for Extension Personnel including sponsored training programmes (off campus): **NIL.**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
Total										

7.G. Sponsored training programmes conducted

S. No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Crop production and management										
1.a.	Increasing production and productivity of crops										
1.b.	Commercial production of vegetables										
2	Production and value addition										
2.a.	Fruit Plants										
2.b.	Ornamental plants										
2.c.	Spices crops										

3.	Soil health and fertility management	10	65	60	125	15	5	20	80	65	145
4	Production of Inputs at site	15	278	120	398	0	0	0	278	120	398
5	Methods of protective cultivation										
6	Others (pl.specify)										
7	Post harvest technology and value addition										
7.a.	Processing and value addition										
7.b.	Others (pl.specify)										
8	Farm machinery										
8.a.	Farm machinery, tools and implements										
8.b.	Others (pl.specify)										
9.	Livestock and fisheries										
10	Livestock production and management										
10.a.	Animal Nutrition Management	1	33	96	129	0	0	0	33	96	129
10.b.	Animal Disease Management	1	14	89	103	0	0	0	14	89	103
10.c.	Fisheries Nutrition										
10.d.	Fisheries Management										
10.e.	Others (pl.specify)										
11.	Home Science										
11.a.	Household nutritional security										
11.b.	Economic empowerment of women										
11.c.	Drudgery reduction of women										
11.d.	Others (Value addition)	21	198	391	589	46	18	64	244	409	653
11.e.	Others (pl.specify)										
12	Agricultural Extension										
12.a.	CapacityBuilding and Group Dynamics										
12.b.	Others (pl.specify)										
	Total	48	588	756	1344	61	23	84	649	779	1428

Details of sponsoring agencies involved

1. IMISHREE Milk Producers Company
2. DIC
3. ATMA
4. Coffee Board
5. KADS
6. High-range Producer Federation
7. i-STED
8. Department of Agriculture
9. State Horticulture Mission

7.H. Details of Vocational Training Programmes carried out by KVKs for rural youth

S. No.	Area of training	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1	Crop production and management										
1.a.	Commercial floriculture										
1.b.	Commercial fruit production										
1.c.	Commercial vegetable production										
1.d.	Integrated crop management										
1.e.	Organic farming										
1.f.	Others (pl.specify)										
2	Post harvest technology and value addition										
2.a.	Value addition										
2.b.	Others (pl.specify)										
3.	Livestock and fisheries										
3.a.	Dairy farming	2	28	40	68	0	0	0	28	40	68
3.b.	Composite fish culture										
3.c.	Sheep and goat rearing										
3.d.	Piggery										
3.e.	Poultry farming										
3.f.	Others (pl.specify)										
4.	Income generation activities										
4.a.	Vermi-composting										
4.b.	Production of bio-agents, bio-pesticides, bio-fertilizers etc.										
4.c.	Repair and maintenance of farm machinery and implements										
4.d.	Rural Crafts	10	0	156	156	0	98	98	0	254	254
4.e.	Seed production										
4.f.	Sericulture										
4.g.	Mushroom cultivation										
4.h.	Nursery, grafting etc.										

4.i.	Tailoring, stitching, embroidery, dying etc.										
4.j.	Agri. para-workers, para-vet training										
4.k.	Others (pl.specify)										
5	Agricultural Extension										
5.a.	Capacity building and group dynamics										
5.b.	Others (pl.specify)										
	Grand Total	12	28	196	224	0	98	98	28	294	322

PART VIII – EXTENSION ACTIVITIES

Extension Programmes (including extension activities undertaken in FLD programmes)

Nature of Extension Programme	No. of Programmes	No. of Participants (General)			No. of Participants SC / ST			No. of extension personnel		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	7	126	44	170	12	4	16	0	0	0
Kisan Mela	2	75	19	94	0	0	0	0	0	0
Kisan Ghosthi	1	156	0	156	0	0	0	6	8	14
Exhibition	6	4578	6067	10645	589	1615	2214	655	802	1457
Film Show	9	93	65	158	0	0	0	0	0	0
Method Demonstrations	13	182	29	211	0	0	0	28	19	47
Farmers Seminar	6	189	87	276	0	0	0	0	3	4
Workshop	2	0	0	0	0	0	0	67	39	106
Group meetings	17	111	10	121	0	0	0	245	398	643
Lectures delivered as resource persons	19	645	235	880	0	0	0	0	0	0
Newspaper coverage	27	225	115	340	0	0	0	35	10	45
Radio talks	11	387	273	660	114	29	1434	44	85	129
TV talks	14	137	94	231	58	62	120	15	5	20
Popular articles	0	0	0	0	0	0	0	0	0	0
Extension Literature	0	0	0	0	0	0	0	0	0	0
Advisory Services	754	656	84	195	6	8	14	12	19	31
Scientific visit to farmers field	228	233	0	23	0	0	0	0	0	0
Farmers visit to KVK	440	851	270	1121	0	0	0	145	49	194
Diagnostic visits	70	98	0	8	0	0	0	0	0	0
Exposure visits	6	37	0	37	0	0	0	0	0	0
Ex-trainees Sammelan	6	20	166	186	0	65	65	0	225	225
Soil health Camp	6	55	50	1050	0	0	0	20	10	30
Animal Health Camp	2	50	41	91	0	0	0	0	0	0
Agri mobile clinic	0	0	0	0	0	0	0	0	0	0
Soil test campaigns	0	0	0	0	0	0	0	0	0	0
Farm Science Club Conveners meet	0	0	0	0	0	0	0	0	0	0
Self Help Group Conveners meetings	37	0	480	480	0	50	500	0	980	980
Mahila Mandals Conveners meetings	0	0	0	0	0	0	0	0	0	0
Celebration of important days (World Honey Bee Day)	1	43	21	64	0	0	0	0	0	0
Celebration of important days (World Soil Day)	1	77	30	107	0	0	0	4	3	7
Celebration of important days (National Milk Day)	1	30	6	36	0	0	0	0	0	0
Celebration of important days (International Women's Day)	1	7	18	25	0	0	0	0	0	0
Celebration of important days (World Food Day)	1	30	4	34	0	1	1	0	0	0
Celebration of important days (Mahila Kisan Divas)	1	4	26	30	0	0	0	0	3	3
Any Other (Specify)	0	0	0	0	0	0	0	0	0	0
Total	1249	8244	7964	16308	779	1834	4364	1131	2609	3741

PART IX – PRODUCTION OF SEED, PLANT AND LIVESTOCK MATERIALS

9.A. Production of seeds by the KVKs: **NIL.**

9.B. Production of planting materials by the KVKs

Crop category	Name of the crop	Variety	Hybrid	Number	Value (Rs.)	Number of farmers to whom provided
Commercial						
Vegetable seedlings						
Fruits						
Ornamental plants						
Medicinal and Aromatic						
Plantation						
Spices	Black pepper	Karimunda	0	850	8500	45
	Black pepper	Panniyur - 1	0	485	4850	16
	Black pepper	Panniyur - 5	0	710	7100	21
Tuber						
Fodder crop saplings						
Forest Species						
Others(specify)						
Total			0	2045	20450	82

9.C. Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	Number of farmers to whom provided
Bio Fertilizers				
Bio-pesticide	Trichoderma	2075	249000.00	621
Bio-fungicide	Pseudomonas	2140	256800.00	704
Bio Agents	Beauveria	325	39000.00	156
Others (specify)	Lecanicillium	282	33840.00	63
	Metarhizium	170	20400.00	34
	Yellow sticky trap	1000	45000.00	250
	Blue sticky trap	5000	150000.00	412
	Neem oil	35	12250.00	6
	IIHR-Neem Soap	200	50000.00	72
	IIHR-Pongamia Soap	5	2500.00	2
	EPN	150	90000.00	7
	Pheromone trap	350	52500.00	74
	VAM	900	90000.00	410
Total		12632	1091290.00	2811

9.D. Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	Number of farmers to whom provided
Dairy animals				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
Poultry				
Broilers				
Layers	BV 380	60	18000.00	19
Duals (broiler and layer)				
Japanese Quail				
Turkey				

Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl. specify)				
Fisheries				
Fingerlings				
Others (Pl. specify)				
Total		60	18000.00	19

PART X – PUBLICATION, SUCCESS STORY, SWTL, TECHNOLOGY WEEK AND DROUGHT MITIGATION

10. A. Literature Developed/Published (with full title, author & reference)

(A) KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.)

(B) Literature developed/published

Item	Title	Authors name	Number
Research papers			
Technical reports			
News letters	News Letter Vol-5	Chairperson	1000
Technical bulletins			0
Popular articles			0
Extension literature			0
Others (Pl. specify)			0
TOTAL			1000

10.B. Details of Electronic Media Produced: NIL.

10.C. Success Stories / Case studies, if any (two or three pages write-up on each case with suitable action photographs. The Success Stories / Case Studies need not be restricted to the reporting period).

This will be considered only with suitable photos for further reporting/reference.

1. Title of the success stories : Skill development enterprise for Tribal Rural youth

Details of success stories :

1. Background

A group of 68 tribal school drop-outs is an example how rural youth can effectively utilize their talents, which would help to lead towards personality development and to reduce poverty. The objective of this group is to mainstream scheduled tribes girl children who have been pushed out. With this objective, the academic orientation is not sufficient and it was realised that vocational and life –skill based training is essential. Following this, in collaboration with KVK Rural craft section, we are engaged in vocational skill development training as well as supportive education for the children in adivasi colonies. To livelihood and starvation issues in these colonies are severe. Hence, the plan is to train tribal girl children and start a production unit for fabric designing and Jewellery making.

2. Intervention process

- To assess their educational needs and to provide essential training.
- To enhance their life-skills by extending life-skill education.
- Skill development vocational training .
- Motivation to start an enterprise.
- Technical guidance for starting the unit.

- Details about availability of raw materials.
- Advisory services.
- Follow-up visit.
- Technical back up in running the unit as when required.

3.Intervention Technology

- To create an environment where women can seek knowledge and information and there by empower them to play positive role in their own development and development of society.
- To enhance the self-image and self-confidence of women and thereby enabling them to recognize their contribution to the economy as producers and workers, reinforcing their need for participating in educational programmes.
- To provide women and adolescent girls with the necessary support structures and an informal learning environment to create opportunities for education.

4.Impact Horizontal Spread

This enterprise aimed at empowering 100 rural youth in tribal areas of Idukki district by providing skill development training to make them self-sufficiency and self-reliant. This enterprise will enable women deprived, poverty stricken, working as domestic servants, single parent and widows are being given opportunity to undergo free training and in turn they earn and live on their own. The entire family will be benefited, will support the beneficiary to establish small scale units.

5.Impact Economic Gains

They earn an average Income per month of Rs.10000/-

6.Impact on Employment Generation

This programme will empower women for their families well being and for their sustainable living, every batch of women / youth-girls will in turn benefit by this programme and will take this as their profession and train other women community and develop their standard of living. Self-employment is the main source of income. So they are engaged more in self-employed manufacturing and trade activities compared to others.

2. Title of the success stories : Women Entrepreneurship - A Success

Details of success stories :

1.Background

Mrs. Lovely Babu, Kollarackal, Rajakumary panchayat in Idukki district. She was raised in a below middle class family. She always dreamt of reaching the sky, but all her talents and dreams were buried due to the responsibilities of her family since she was the elder child. She always had the desire to make varieties of artificial flowers and handicrafts. In her childhood days she used to collect dry leaves and flowers from the forest nearby and used to make different varieties of bouquet arrangements but no one realized her talents and abilities. Even after her marriage, she had been struggling for twenty years to bring up her children and to look after her in laws. But all these problems were silly as compared to her great dream. She always kept in touch with her interest and dreams. Six months ago fortunately, she got a chance to attend the vocational training conducted under KVK Rural craft discipline. She was inspired by the motivations she received from Mrs. Rachel Skaria, Programme Assistant of Rural craft discipline, KVK. Her support brought great changes in Mrs. Lovely's hidden talents. Both of them combined their ideas and brought a change in their creations and marketing trends. They visited various forests, hills, valleys and farms in the neighbouring states of Kerala, Tamil Nadu and Karnataka to collect raw-materials like varieties of dried grasses, areca sheets, palm leaves, corn husk, different types of cereals etc. They met owners of farms and seek their permission to pick up agricultural wastes; they visited bread factories to collect discarded bread to make different varieties of flowers. Now Mrs. Lovely is an example how a woman can effectively utilize their talents and leisure time for income generation. She has taken bulk orders from fancy stores, local markets and she has participated in flower shows and exhibitions, now she started online marketing. She has employed two ladies to work along with her. The main finishing work is done by her and the rest of the work is done by the women working with her. She purchases the raw materials in bulk at a cheaper rate and the work place is her-own house. Therefore, the profit she gains is comparatively higher.

2. Intervention process

- 6 months vocational training.
- Motivation to start an enterprise.
- Technical guidance for starting the unit.
- Details about availability of raw materials given.
- Advisory services.
- Follow-up visits.
- Technical back up in running the unit as when required.

3. Intervention Technology

To provide skill development vocational training to make her self-sufficient and self-reliant.

4. Impact Horizontal Spread

This enterprise will provide skill development for the women dwellers in identified area, families will be benefited directly and creating a ray of hope for better source of livelihood, and live a sustainable life with self-sufficiency and self-reliance.

5. Impact Economic Gains

She earns an average profit of Rs. 25000 / month

6. Impact on Employment Generation

Motivated from the above mentioned Mrs. Lovely's successful enterprise, 12 rural women formed a self help group named Arts Vigyan SHG under Rural Craft discipline KVK; they started designing, jewelry making and production of home care products on a commercial basis. In addition to this unit, they are planning to start a small fancy store with loan availing from nearby Co-operative bank for self-sufficiency and self employment. Also they generate employment opportunities for others.

10.D. Give details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year: NIL.**10.E. Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)**

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK

10.F. Indicate the specific training need analysis tools/methodology followed for: NIL.**10.G. Field activities**

- Number of villages adopted: 10
- No. of farm families selected: 42
- No. of survey/PRA conducted: 3

10.H. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab : Functioning.

- Year of establishment : 2005-06
- List of equipments purchased with amount :

Sl. No	Name of the Equipment	Qty.	Cost
1.	LPG Cylinder	1	4600.00
2.	Water bath WDB-2 350'400'100mm 12 holes	1	4815.00
3.	Machinery for Homogenising (khan shaker) Model LKS2 platform size 75cmx43cmx10cm	1	20,880.00
4.	Rotary Shaker	1	16,200.00
5.	Machinery for drying (Hot air oven) with digital temperature control, size 455'455'455'	1	13,725.00

6.	Conductivity meter (PH meter Eutech 510)	1	21,935.00
7.	Genesis 20 visible Spectrophotometer meter	1	1,12,499.00
8.	CITIZEN Physical Balance Model CTL-600	1	8,991.00
9.	Micro processor based conductivity	1	13,500.00
10.	Micro Processor Based Flame Photometer with N, K & Ca FILTERS & Compressor	1	45,000.00
11.	Electronic Automatic KEL PLUS Micro processor Based Twelve Place Micro Block Digestion System	1	97,043.00
12.	Electronic Balance Model: CP 2245 Srl.No.18606016	1	1,00,000.00
13.	Hot plate	1	5,400.00
Total		12	4,64,588.00

Details of samples analyzed so far since establishment of SWTL:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	2342	1515	42	117100.00
Water Samples	0	0	0	0
Plant samples	0	0	0	0
Manure samples	0	0	0	0
Others (specify)	0	0	0	0
Total	2,342	1,515	42	1,17,100.00

Details of samples analyzed during the 2017-18:

Details	No. of Samples analyzed	No. of Farmers benefited	No. of Villages	Amount realized (Rs.)
Soil Samples	394	334	20	49304.00
Water Samples	0	0	0	0
Plant samples	0	0	0	0
Manure samples	0	0	0	0
Others (specify)	0	0	0	0
Total	394	334	20	49,304.00

Details of soil health cards issued during the 2017-18 :

Date (s)	Farmers participated	No. of Samples analyzed	Soil health cards issued	No. of Villages	Public representatives participated	
					MLA / Minister	Other Dignitaries/ Chief guests
22/6/2017	30	37	37	1	-	Officers of DoA
10/8/2017	20	26	26	1	-	Panchayat members
04/8/2017	30	35	35	1	-	Officers of DoA
06/10/2017	30	37	35	1	-	Panchayat members
12/10/2017	35	50	50	1	-	Panchayat members
24/10/2017	50	100	50	2	-	Officers of DoA
05/12/2017	104	109	109	1	-	Panchayat members, President

10.I. Technology Week celebration during 2017-18: Yes

Period of observing Technology Week: From 23/01/2018 to 25/01/2018

Total number of farmers visited : 315

Total number of agencies involved : 8

Number of demonstrations visited by the farmers within KVK campus : 202

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies	1	170	Crop
Lectures organized	0	0	-
Exhibition	6	14316	Crop, Value addition & Rural craft
Film show	9	158	Crop & Livestock
Fair	0	0	-
Farm Visit	3	25	Crop
Diagnostic Practicals	0	0	-
Supply of Literature (No.)	300	300	Crop & Livestock
Supply of Seed (q)	0	0	-
Supply of Planting materials (No.)	2045	82	Crop
Bio Product supply (Kg)	12632	2811	Crop
Bio Fertilizers (q)	0	0	-
Supply of fingerlings	0	0	-
Supply of Livestock specimen (No.)	60	19	Livestock
Total number of farmers visited the technology week	4	315	Crop & Livestock

10. J. Interventions on drought mitigation (if the KVK included in this special programme)**A. Introduction of alternate crops/varieties**

State	Crops/cultivars	Area (ha)	Number of beneficiaries
Kerala	Small Cardamom	50	75
Kerala	Black pepper	10	18

B. Major area coverage under alternate crops/varieties: NIL.

C. Farmers-scientists interaction on livestock management

State	Livestock components	Number of interactions	No. of participants
Kerala	Dairy cattle, Goat and Poultry	18	23
Total		18	23

D. Animal health camps organized

State	Number of camps	No. of animals	No. of farmers
Kerala	2	13	91
Total	2	13	91

E. Seed distribution in drought hit states: NIL.

F. Large scale adoption of resource conservation technologies: NIL.

G. Awareness campaign:

State	Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers
Kerala	9	267	1	125	4	60	0	0	2	345	5	300
Total	9	267	1	125	4	60	0	0	2	345	5	300

PART XI. IMPACT

11.A. Impact of KVK activities (Not restricted for reporting period).

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
GAP in small cardamom	145	45%	210000.00	291000.00

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

11.B. Cases of large scale adoption: NIL.

11.C. Details of impact analysis of KVK activities carried out during the reporting period

PART XII - LINKAGES

12.A. Functional linkage with different organizations

Name of organization	Nature of linkage
ATMA	Demonstration and Trainings
State Planning Board	Demonstration and Scouting and documentation of farm innovations

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

12.B. List special programmes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Low cost VAM Production	March-2018	SHM	2,40,000.00
Low cost mass multiplication of Trichoderma	September-2017	ATMA	8,00,000.00

12.C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes/No: Yes

If yes, role of KVK in preparation of SREP of the district?

Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings	Monthly Technology Advisory	8	2	-
02	Research projects				
03	Training programmes	Organic Farming, Capacity building, Soil health management	35	10	-
04	Demonstrations	Drought management	4	4	-
05	Extension Programmes				
	Kisan Mela				
	Technology Week	Conducted at KVK & SVF, Vandiperiyar	2	3	-
	Exposure visit				
	Exhibition				
	Soil health camps	Soil Health Campaign	5	6	-
	Animal Health Campaigns				
	Others (Pl. specify)				
06	Publications				
	Video Films				
	Books				
	Extension Literature				
	Pamphlets				
	Others (Pl. specify)				
07	Other Activities (Pl. specify)				
	Watershed approach				
	Integrated Farm Development				
	Agripreneurs development				

12.D. Give details of programmes implemented under National Horticultural Mission: NIL.**12.E. Nature of linkage with National Fisheries Development Board: NIL.****12.F. Details of linkage with RKVY: NIL.****12. GKisan Mobile Advisory Services: NIL.**

PART XIII- PERFORMANCE OF INFRASTRUCTURE IN KVK

13.A. Performance of demonstration units (other than instructional farm): NIL.

13.B. Performance of instructional farm (Crops) including seed production

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals									
Pulses									
Oilseeds									
Fibers									
Spices & Plantation crops									
	-	-	5ha	Thriuthali	Dry cardamom	600 kg	240000.00	240000.00	-
Floriculture									
Fruits									
Vegetables									
Others (specify)									

13.C. Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.,)

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1.	Trichoderma	2075	103750.00	145250.00	-
2.	Pseudomonas	2140	107000.00	149800.00	-
3.	Beauveria	325	14100.00	22750.00	-
4.	Lecanicillium	282	13250.00	19740.00	-
5.	Metarhizium	170	8500.00	11900.00	-
6.	Yellow sticky trap	1000	22000.00	20000.00	-
7.	Blue sticky trap	5000	50000.00	75000.00	-
8.	Neem oil	35	12250.00	6850.00	-
9.	IIHR-Neem Soap	200	50000.00	28000.00	-
10.	IIHR-Pongamia Soap	5	2500.00	1450.00	-
11.	EPN	150	10000.00	30000.00	-
12.	Pheromone trap	350	22500.00	20000.00	-
13.	VAM	900	40000.00	50000.00	-

13.D. Performance of instructional farm (livestock and fisheries production): NIL.

13.E. Utilization of hostel facilities: NA.

Accommodation available (No. of beds)

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2017			
May			
June			
July			
August			
September			

October		
November		
December		
January 2018		
February		
March		

13.F. Database management

S. No	Database target	Database created
1.	Farmers database	Database for (2017-18)

13.G. Details on Rain Water Harvesting Structure and micro-irrigation system: NIL.**PART XIV - FINANCIAL PERFORMANCE****14.A. Details of KVK Bank accounts**

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
Revolving Fund Account	State Bank of India	Rajakumary	70453	Bapooji Krishi Vigyan Kendra (Rev Fund)	67155078042	6850002932	SBIN0070453
Main Grant Account	State Bank of India	Rajakumary	70453	Bapooji Sevak Samaj Krishi Vigyan Kendra	57060836995	6850002932	SBIN0070453

14.B. Utilization of KVK funds during the year 2017-2018 (Rs. in lakh)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	91.94	91.94	91.93600
2	Traveling allowances	1.80	1.80	1.80
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	3.50	3.50	3.50
B	POL, repair of vehicles, tractor and equipments	1.50	1.50	1.50
C	Meals/refreshment for trainees (ceiling up to Rs.40/day/trainee be maintained)	1.00	1.00	1.00
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	0.70	0.70	0.70
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	1.80	1.80	1.80
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	0.65	0.65	0.65
G	Training of extension functionaries	0.25	0.25	0.25
H	Maintenance of buildings	4.00	4.00	4.00
I	Establishment of Soil, Plant & Water Testing Laboratory	0.25	0.25	0.25
J	Library	0.05	0.05	0.05
K	Farmers Field School	0.30	0.30	0.30
L	Extension Activities	1.10	1.10	1.10
M	EDP	0.32	0.32	0.32
TOTAL (A)		109.16	109.16	109.156
B. Non-Recurring Contingencies				
1	Works	0.00	0.00	0.00
2	Equipments including SWTL & Furniture (NFC)	0.25	0.25	0.25
3	Vehicle (Four wheeler/Two wheeler, please specify)	0.00	0.00	0.00
4	Library (Purchase of assets like books & journals)	0.00	0.00	0.00
TOTAL (B)		0.25	0.25	0.25
C. REVOLVING FUND		0.00	0.00	0.00
GRAND TOTAL (A+B+C)		109.41	109.41	109.406

14.C. Status of revolving fund (Rs. in lakh) for the three years

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year
April 2015 to March 2016	3.57321	10.66089	9.95650	4.27760
April 2016 to March 2017	4.27760	17.35988	20.69216	0.94532
April 2017 to March 2018	1.22202	19.25146	12.10905	8.36443

15. Details of HRD activities attended by KVK staff

Name of the Staff	Designation	Title of the training programme	Institute where attended	Dates
Sudhakar Soundarjan	SMS-Plant Protection	Mass Multiplication of bio - agents and parasites	ICAR-NBAIR	08/02/2018
Sudhakar Soundarjan	SMS-Plant Protection	Protected vegetable cultivation	TNAU	15/05/2017 to 17/05/2017

16. Please include any other important and relevant information which has not been reflected above (write in detail): NIL.